

## Claims

What is claimed is:

- 1        1. A method for implementing multiple signals probing of a  
2 printed circuit board comprising the steps of:  
3              forming a probe structure on an outside surface of the printed circuit  
4 board;  
5              electrically connecting a resistor with a predefined via associated with  
6 a signal to be monitored; and  
7              defining a path to a predefined probe location for monitoring said  
8 signal from said resistor using said probe structure.
  
- 1        2. A method for implementing multiple signals probing as recited  
2 in claim 1 wherein the step of forming said probe structure includes the step  
3 of forming a pattern of a plurality of spaced apart stubs to define said probe  
4 structure on said outside surface of the printed circuit board.
  
- 1        3. A method for implementing multiple signals probing as recited  
2 in claim 2 wherein the step of forming said pattern of said plurality of stubs  
3 includes the step of etching an electrically conductive material in said  
4 pattern of said plurality of stubs to define said probe structure on said  
5 outside surface of the printed circuit board, each stub including an  
6 elongated portion extending from at least one pad.
  
- 1        4. A method for implementing multiple signals probing as recited  
2 in claim 3 wherein said electrically conductive material includes copper.
  
- 1        5. A method for implementing multiple signals probing as recited  
2 in claim 3 wherein the step of electrically connecting said resistor includes  
3 the step of placing said resistor between said predefined via associated with  
4 said signal to be monitored and said pad of an adjacent one of said plurality  
5 of stubs of said probe structure.

1       6. A method for implementing multiple signals probing as recited  
2 in claim 3 wherein the step of defining said path to said predefined probe  
3 location for monitoring said signal from said resistor using said probe  
4 structure includes the steps of placing zero-ohm shorts between selected  
5 ones of said plurality of stubs of said probe structure.

1       7. A method for implementing multiple signals probing as recited  
2 in claim 1 wherein said resistor has a selected high resistance value relative  
3 to a characteristic impedance of the printed circuit board at said predefined  
4 via associated with said signal to be monitored.

1       8. A method for implementing multiple signals probing as recited  
2 in claim 1 includes the steps of removing said resistor and said path after  
3 testing is completed.

1       9. Apparatus for implementing multiple signals probing of a  
2 printed circuit board comprising:  
3           a probe structure formed on an outside surface of the printed circuit  
4 board;  
5           a resistor electrically connected with a predefined via associated with  
6 a signal to be monitored; and  
7           a path defined to a predefined probe location for monitoring said  
8 signal from said resistor using said probe structure.

1       10. Apparatus for implementing multiple signals probing as recited  
2 in claim 9 wherein said probe structure includes an electrically conductive  
3 material forming a pattern of a plurality of spaced apart stubs defining said  
4 probe structure on said outside surface of the printed circuit board, each  
5 stub including an elongated portion extending from at least one pad.

1       11. Apparatus for implementing multiple signals probing as recited  
2 in claim 10 wherein said path is formed by electrically shorting between said  
3 pads of selected ones of said plurality of spaced apart stubs.

1       12. Apparatus for implementing multiple signals probing as recited  
2 in claim 9 wherein said resistor and said path are removed after testing is  
3 completed.

1           13. Apparatus for implementing multiple signals probing as recited  
2 in claim 9 wherein said probe structure formed on said outside surface of the  
3 printed circuit board includes an electrically conductive material etched to  
4 define a grid of a plurality of spaced apart stubs defining said probe  
5 structure.

1           14. Apparatus for implementing multiple signals probing as recited  
2 in claim 13 wherein said electrically conductive material is copper.

1           15. Apparatus for implementing multiple signals probing as recited  
2 in claim 9 wherein said resistor has a selected high resistance value relative  
3 to a characteristic impedance of the printed circuit board at said predefined  
4 via associated with said signal to be monitored.